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THE Journal of the Society of Arts, AND OF THE INSTITUTIONS IN UNION.

111TH SESSION.]

FRIDAY, AUGUST 25, 1865.

[No. 666. VOL. XIII.]

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Announcements by the Council.

PROGRAMME OF EXAMINATIONS FOR 1866.

In the List of the Secretaries of Local Boards, published in last *Journal*, the following was omitted:—

Christchurch..... Mr. Wm. Judd, F.C.S.

Proceedings of the Society.

MUSICAL EDUCATION COMMITTEE.

The Committee met on June 12, 1865. Present:—H. Cole, Esq., C.B., in the chair; Lord Gerald FitzGerald, Sir John Harington, Bart., Colonel Scott, R.E., Captain Donnelly, R.E., Messrs. R. K. Bowley and R. Puttick.

The Right Hon. SIR GEORGE CLERK, Bart., examined as follows:—

246. I observe by the Charter of the Royal Academy of Music, there is a Board of Directors and a Committee of Management, but practically, I suppose, they are nearly the same body?—The Committee of Management are a Committee of the directors.

247. Has that always been the case?—They are practically one and the same. There are not so many directors as are authorised by the Charter.

248. The Charter would seem to have intended that there should be a Board of Directors and a Committee of Management besides; but practically they are the same body?—No: the Directors are all members of the Committee: and when there is any important business to transact they are specially summoned to meet.

249. The members of the committee of management are not necessarily directors?—I think they have always been.

250. It seems to be mere matter of form; the two bodies are practically the same?—Yes.

251. Whatever the intention of the charter was, practically it is the same thing?—Yes.

252. They take no part in the professional instruction?—They do not interfere in the details of the musical instruction. Their duty is to attend chiefly to the finances, and to take care that no irregularities are committed; and if there is anything either from neglect on the part of the professors or the students, that is reported

by the principal to the committee, who take such measures thereupon as they judge expedient.

253. Do the subscribers have a voice in the election of directors?—I believe they have; but the subscribers are a very small body.

254. In fact the charter is all but a dead letter?—No; but the directors being a self-elected body fill up the vacancies themselves.

255. Do you consider the public might be induced to take an increased interest in the institution, and furnish funds if they had an interest in the election of the directors and managers?—Perhaps they might, and we should be glad to see such an interest awakened as would give it a greater degree of popularity. At first, when students were educated at a very low fee, it was a matter of favour to admit them, and they were admitted by the votes of the subscribers; but very soon after the establishment of the Academy it was found that the funds were perfectly inadequate to carry it out on the scale first proposed. We were obliged then greatly to increase the fees paid by the friends of the pupils, and it ceased to be a matter of great importance to the subscribers to have a vote. The pupils now are obliged to be recommended by a subscriber, or some person connected with the Academy. At present we are obliged to ask so large a sum that there is very little difficulty with regard to the admission of students, if they exhibit any talent at all, and that evidence makes it scarcely a favour to be admitted into the Academy; and this does to a certain extent weaken the discipline of the officers of the Academy.

256. Did Parliament accompany the late grant to the Academy with any stipulations or conditions?—There were some conditions stated in the Treasury letter, which go to the effect that we should be able to show, with the additional subscriptions we get, the Government grant would be sufficient: that it was not merely giving a grant for two or three years to an institution which was likely to become insolvent in that period.

257. Is the competition for the scholarships public?—It is conducted by the various professors of the Academy, and subscribers are entitled to be present while the competition is going on.

258. Have you any objection to put in a copy of the Treasury letter?—Not the least. (See Appendix, p. 635.)

259. Do the members of the Committee of Management inspect the working of the Academy, or is it left to the principal?—They do not interfere, as I have said, in the details of professional instruction. We leave to

the principal the general superintendence of the Academy. He is the intermediate authority between the Committee and the professors, and he is there the greater part of the day.

260. He is that intermediate authority—not the secretary?—The secretary never had anything to do with that.

261. Who notes down the attendances of the professors?—There is a book kept in the hall, and every professor is required to enter his name as he arrives, and the porter puts in the hour and minute at which he arrives; and on leaving the Academy the professors enter their names in another book to show when they leave, so that there is a complete check upon the time they attend.

262. Referring to the Charter, I find that the number of members may be indefinite?—That means the subscribers; that is, the body corporate may be indefinite.

263. The board of directors is to consist of thirty members?—Yes.

264. Besides these thirty directors there is to be a committee of management of not more than fifteen, nor less than seven? It does not appear from the charter that they necessarily are the same persons?—No.

265. But practically at the present time they are?—We can get no others.

266. Do the Directors or the committee of management appoint the professors?—The directors have attended as a matter of form for many years; they attend one or two meetings a year.

267. Are the Professors paid wholly by fees?—They are paid at so much per hour of attendance.

268. Not according to the number of students?—It is so to a certain extent; because, as they give half an hour's separate instruction to each pupil, a professor who has twice as many as another must attend double the time and receives double the amount of remuneration. They are paid according to the number of students they have under them, because that makes the time.

269. Then a professor has a pecuniary interest in the number of pupils he teaches?—Certainly.

270. Have you any students whose fees are wholly remitted?—I think none at this moment.

271. But you have students who pay different grades of fees?—As a matter of favour some indulgence has been given.

272. You have some who hold scholarships?—We have four scholarships; two King's scholarships which nearly pay the whole expenses of the education. The others pay only about one-third part of it.

273. Should you consider it desirable to increase these scholarships?—Yes: I think it would be a means of inducing promising pupils to remain till their education was completed, which is frequently not the case now from want of means on the part of their friends to keep them at the Academy.

274. Do you think it likely increased subscriptions would be obtained by increasing the number of scholarships?—I think it would be a likely means of doing so.

275. You would have no objection to the funds being increased by some process of that sort?—That would educate at a reduced rate a certain number of pupils, but it would not afford funds for carrying on the general business of the Academy.

276. If the institution was made thoroughly efficient, and very attractive, it is not difficult to conceive that some classes of students, sufficiently rich, would pay fees enough to cover the cost of management, and you might look forward to obtaining from the State a sufficient endowment to establish several scholarships?—The friends of pupils who join the Academy with the intention of devoting themselves to the musical profession can only pay fees which cover the expense of the education. The object of the Academy is to afford the means of more thorough musical education to persons who devote themselves to it professionally. It is not our wish that ama-

teurs should be educated in the Academy at a reduced rate.

277. You would have no objection to amateurs joining the Academy if they paid sufficiently remunerative fees?—I think it might be managed, but I doubt whether it would be expedient.

278. Does the Academy require that they shall be professionals?—It is understood that is their intention either to become public professors or teachers.

279. You have had long experience in Parliamentary life and proceedings. Have you any expectations that Parliament could be induced within any reasonable time to give a grant of £10,000 a year to the Academy?—I cannot say that I have.

280. Perhaps if a more modest request were made, and put upon sufficient grounds, it might be more successful?—I doubt very much at the present time whether any Chancellor of the Exchequer would venture to propose any great increase upon the present grant.

281. Any materially increased assistance from Government must come from an expression of public opinion in favour of it?—Yes; perhaps so.

282. What, in your opinion, would be the result of a Parliamentary committee of inquiry?—A committee of the House of Commons on the subject of music I think would do no good. If any inquiry is made it would be better to have a Royal Commission.

283. You are entirely on the side of the improvement of the present Academy if it can be effected?—We have stated publicly, and distributed circulars to the effect, that our object is to have the fullest inquiry into the management, and our desire to adopt any alterations and improvements that may place the Academy upon a more popular basis.

284. If you had premises suitable in all respects rent free it would aid you materially?—Yes.

285. I believe the authorities of the Academy applied to the Royal Commissioners for the Exhibition of 1851 for their aid in providing a new site for premises at Kensington?—I was deputed by the committee to communicate with the Prince Consort on that subject, and his royal highness, I believe, was quite willing to have assigned a portion of ground at Kensington for the purpose; but it was merely as to the site. I explained to his royal highness that it was quite out of our power to erect a building upon it.

286. If, in addition to a site, a building suitable for your purposes were put up on it, you would receive it with great satisfaction?—Yes; I should indeed.

287. Then it is not correct, as has been stated, that you have declined the assistance of the Commissioners of the Exhibition of 1851?—No; we do not refuse the smallest donations.

288. We understand that the principal of the Academy has the entire responsibility of the musical education? How long has that existed? Was there not at one time a board of professors?—A board was appointed as assessors, to assist the principal in any cases he required.

289. The principal has been the only responsible person?—Yes.

290. And he has been the person to appoint the teachers?—He has not had the selection of the teachers alone. He recommends to the committee of management that such and such persons should be appointed, and he gives a recommendation as to the distribution of the pupils to the various professors.

291. Do you think it for the advantage of the Academy that there should be one superintendent only, or that the responsibility should be divided?—I think it better to have one sole and undivided authority.

292. If you appoint a musical professor to the office of principal, he is practically chosen for life, and there would be some difficulty in removing him from it?—It might be difficult.

293. I would ask you whether you do not think that

a disadvantage?—It depends upon a judicious selection being made in the first instance.

294. Is the present principal paid by a salary?—Yes: that is a recent arrangement. We thought it would add to the dignity of the office to pay him a fixed salary, the amount of which is as near as possible what he received as a teacher of harmony in the Academy.

295. Is it not usually found to be the case in educational institutions that they generally succeed better if the masters and teachers are paid according to the success of the institution; at our great schools the success or otherwise is judged of by the amount of income of the principal?—That arises from the number of students and a capitation allowance.

296. Do you think that principle might be introduced with advantage into the Royal Academy of Music?—Only to a limited extent, perhaps; because I do not think it desirable to increase the number of musical teachers in the country beyond a certain limit, as there might be no opportunity for their being absorbed as performers or as instructors.

297. Would you not have the institution grow to any extent possible, within the capabilities of management?—You might go so far as to make the supply of teachers far beyond the demand. We have not come to the limit yet, certainly.

298. Is it your opinion that, in addition to a liberal salary, the principal should be remunerated according to the success of the institution?—I think that would be a very valuable principle; and, perhaps, the best mode of judging of results, that there should be something in the nature of a capitation allowance for each scholar. It might be of service in stimulating the exertions, not only of the principal, but of the other professors altogether.

299. Is it not desirable that you should make periodical reports to Parliament upon the working of the institution, seeing you are now receiving Parliamentary funds?—We may be called upon to do so. I may mention generally we have found great difficulty for years in carrying on the institution in what I consider a perfectly satisfactory manner, from the deficiency of funds. In some respects we have been obliged to reduce our establishment to the lowest point compatible with efficiency, and I am afraid we have to some degree gone beyond that, particularly in dispensing with the services of a general superintendent—not a professional musician—whom we had at one time, and to whom we paid a moderate salary.

300. Now you have only a principal?—That is all.

301. At that time the principal was not salaried?—No.

302. It appears by the paper which has been furnished by Mr. Gimson, of the receipts and expenditure of the Academy, that the cost of each pupil, including maintenance of the establishment, is on an average £45 a year?—That would vary according to the number of students there happened to be in any particular year. If there were a great number of students a small surplus over what is paid for the musical education would be sufficient to maintain the establishment; but some years there are a small number of pupils, and then the expenses divided amongst that small number would be high.

303. Do you consider the amount of musical education given in the Academy in each branch sufficient to complete the pupils?—I should say so if they remained at least three years.

304. Practically do you find that the pupils derive their education during the term they are at the Academy, solely from the Academy, or do you find in some instances they have private tuition besides?—I am not aware of any such cases. Their time is so fully occupied with lessons and practice, and the expenses of the Academy are so much complained of, that I doubt whether any of the pupils go beyond that.

305. Can you give the committee any idea of the average expense for each pupil in an Academy of Music conducted as you would wish it to be, and with a sufficient amount of education?—I say from £40 to £45 a year would be amply sufficient; and if the funds of the Academy amounted to a sufficient sum, we would like a reduced contribution from the pupils.

306. With regard to the amount of fees paid by the pupils, do you consider it to be generally too high?—I am afraid it is too often felt to be so by the parents. We have had cases in which the friends of pupils of great talents have said unless the fees were reduced they would be obliged to withdraw the students.

307. Do you think that might be met by having graduated payments? Or do you think it impolitic to admit students at too low a fee, and that the cheaper you make musical education the more common you make it, and that the tendency would be to lower that class of education?—I think it could hardly be the case with a musical academy. It would make it important to get admission, and there would be a stricter examination. At present no person with talent is refused, at a moderate rate of payment—two-thirds or one-half the usual amount is sometimes taken to induce them to remain till their education is completed.

308. You would be in favour of taking smaller fees in cases of great competency and promise?—Yes; we have done so. In many instances we have agreed to take a smaller amount than the regular fee from pupils who have shown great talent.

309. The amount of annual subscriptions to the Academy do not much exceed £200?—No, they do not.

310. To what do you attribute that small amount of public subscriptions? Is it to want of popularity of the institution?—People do not subscribe money generally, unless they get a *quid pro quo*. What have we to offer? If there were the inducement of attractive concerts it might be different. As it is we have no public inducements to hold out.

311. Could you not hold out the inducement of repeated concerts?—We hold concerts of the pupils, and we find the expenses exceed the receipts.

312. Do you think some system might be devised by which benevolent people of musical tastes, and wealthy, would be disposed to pay at once the necessary fees for the education of a student, and having the right of maintaining a student?—We have had instances of persons undertaking to pay the fees of a student for two or three years.

313. As you are aware there are numerous charitable and educational institutions in which the donation of a certain sum, £100 or £500, as the case may be, entitles the donor to a nomination to the institution; do you not think that plan might be applicable to the Academy of Music?—I think there is hardly sufficient public interest in music to hope much from that source. The Academy would be only too happy if it were so. We should be ready to modify the system in any way that might be thought desirable.

314. Is there any person in the existing governing body of the Academy to make new rules for the regulation of the Academy?—The directors and committee may make bye-laws, not inconsistent with the general provisions of the charter.

315. Would it be in the power of the directors to make a bye-law that persons making a certain donation to the Academy should be entitled to the nomination of pupils?—There could be no difficulty about it, nor do I imagine there could be any objection to it whatever.

The Committee then adjourned.

APPENDIX.

Copy of a Letter from the Lords Commissioners of Her Majesty's Treasury.

Treasury Chambers, June, 29, 1863.

MY LORD,—I am directed by the Lords Commissioners

of Her Majesty's Treasury to acknowledge the receipt of the memorial addressed to the Chancellor of the Exchequer by the directors of the Royal Academy of Music for the grant of assistance from Her Majesty's Government.

Their lordships have also had before them a paper, signed by the Principal of the Royal Academy of Music, forwarded on the 29th of April last, submitting observations and suggestions on behalf of the professors of the Royal Academy of Music, and a memorial of the professors, members, associates, and honorary members of that Institution.

My lords are disposed to agree that it may justly deserve consideration, whether on general grounds it might not be proper to afford some public aid or recognition to the art of music. They are also of opinion that the remarkable extension of taste and knowledge with respect to this art, which has taken place within a recent period, does not of itself dispense with the necessity of special efforts, and of special institutions with a view to the scientific training of well-selected pupils in the principles and practice of the art. It has been found in the case of the general education of the people, that there is much more disposition to support the teacher when trained than to assist in keeping at work the machinery which is necessary for training him. The same thing may be true with such qualifications as the difference of subject suggests in the case of the artist in music.

My lords are therefore disposed to take into consideration, before the estimates of next year are proposed, the question whether some aid or recognition by the state might not fitly be extended to the art of music, and to some institution connected with it.

Undoubtedly the institution which first offers itself to view as presumptively entitled to the benefit of such consideration of the general question, is the Royal Academy of Music, from the high character of the countenance it has enjoyed, from the services it has rendered during a series of years, and from the testimony which has been borne to its merits in the memorial from the Professors of Music to which reference has been made.

It is, however, one thing to aid by money or building an institution already self-supporting and efficient, with a view to its greater and more lasting utility, and another thing to undertake to supply similar support to an institution whose resources appear to be diminishing and wasting away, so that the state might soon, and yet unawares, become virtually pledged to engage to supply both its maintenance and its management.

My lords regret to perceive the extreme slenderness of the present funds of the Royal Academy of Music.

Upon the whole they think it their duty to attach to the statement they have made above in favour of the consideration of the question, the following reservations:—

1. In the event of their taking any step such as has been shadowed out, they remain free entirely to consider what shall be the nature, particulars, and conditions of any aid which it may be proposed to give.

2. In particular, they will deem it necessary to be assured, by sufficient proof, that the institution which may claim to be the immediate recipient of aid is not only one entitled to acknowledgments for past services, but is also in possession of the general confidence of the profession, and is constituted in the most effective manner, and on the most liberal principles for the prosecution of its purposes; or else is engaged in adopting such measures as may entitle it to claim to correspond with this description.

3. They would think it necessary that measures should be adopted by the Royal Academy of Music to obtain a much more extended amount of voluntary support, so as to secure to it the character of an institution having the promise of permanence from its own resources, and seek-

ing not to throw upon the state a task refused by private liberality, but to obtain by the countenance, as well as the funds of the state, power to prosecute its proper aims, upon a scale more fully adequate to their importance.

My lords are quite willing that the Directors of the Royal Academy of music should make such use of this communication as they may think proper.

I am, My Lord,

Your obedient servant,

(Signed) G. ARBUTHNOT.

The Earl of Wilton,
Chairman of the Directors of the
Royal Academy of Music.

Proceedings of Institutions.

CHATHAM, ROCHESTER, & C., MECHANICS' INSTITUTE.—

The twenty-eighth annual report says that during the year there has been no increase of subscriptions, but rather the reverse. The previous report showed that more than £100 remained over and above the necessary expenditure at the close of last year. £46 has been expended for the purchase of books, which enabled the committee to place about five hundred fresh volumes in the library. An addenda to the old catalogue was also prepared, at a very considerable expense, which has found but few purchasers, so that its publication has entailed a heavy loss upon the Institution. The statement of the librarian that 6,240 volumes have been issued during the past year, shows that the readers must be numerous. The committee are endeavouring to increase the inducements for artizans to join the Institution, and to that end have again made efforts for the formation of classes, and, that no one may be excluded from participating in their benefits by want of means, it has been determined to issue a ticket of membership, the price of which shall be 1s. 6d. per quarter throughout the year; and that to join a class, it will only be necessary to pay sixpence per quarter additional. A mechanical drawing class is now in operation, under Mr. T. Merritt, and a Latin class will, it is hoped, be formed immediately, under the Rev. S. Arnott, Vicar of Chatham. Other gentlemen have also kindly offered their gratuitous services, so that the committee can undertake to find a teacher for almost any branch of study which six of the members may express a desire to enter on. The committee point out the benefits which may be derived by entering the classes, and speak of the advantages of examinations. One of the candidates, a member of this Institution, who took a first-class certificate, and the second prize in arithmetic of three guineas, as well as a second-class certificate in algebra, had the pleasure not only of receiving these rewards from the hand of the Prince of Wales, and of having his certificate signed by Mr. Charles Dickens, as president of the local board of examiners, but of almost directly being appointed to a clerkship on the Cobham estate, by the Earl of Darnley, who considered these documents quite satisfactory evidences of his fitness for the office, which will doubtless prove a first step to his advancement in life. The committee, while mentioning that the Institution has been affiliated to the Kent Association, express their admiration for the public spirit and energy displayed by the chief promoter of this union—Mr. W. Monk, of Faversham, through whose indefatigable exertions the people of that town have obtained an institute which may be well taken as a model for the formation of others of a similar character. The greatest effort made by the committee during the past year was that for getting up a local exhibition of things curious, beautiful, and interesting, in the lecture hall; this was a complete success as an exhibition, although, in a pecuniary sense, to some extent a failure, the expenditure having exceeded the receipts by about £10.

SLOUGH MECHANICS' LITERARY AND SCIENTIFIC INSTITUTION.—The last report congratulates the members on the continued prosperity of this Society. The total amount of receipts for the year was £142 3s. 7d., while the payments for the same period were £125 0s. 3d., leaving a balance of £17 3s. 4d. in favour of the Institution. The society comprises at the present time 147 members. The committee desire to record their thanks to the President, Lord Taunton, for the great interest he has manifested in the welfare of the Institution, and more especially for granting the use of Stoke-park to its members for the last 12 years, thereby affording most agreeable recreation and amusement, and at the same time materially aiding the funds of the society. The library contains upwards of 1,200 volumes, and 1,300 volumes were issued to the members in the past year. The committee hope that as opportunities arise, the friends and supporters of the institution will kindly favour them with donations of books. The committee report the continued success of the drawing class, conducted by Mr. Chapman, assisted by Mr. Dorrell. This last year there has been a greater number of pupils than formerly, and the attendance especially in the first half of the year very good; on some occasions more than 40 were present at the class meetings, the average attendance throughout the year being about 32. At the Art Examination at Kensington and at the Society of Arts Examination, the students acquitted themselves with great credit. At the Government Science Examination, three members won prizes; others were successful, but having carried off prizes in former years they could not again receive them. A master's certificate has been obtained by Joseph Watson at the November examination; this now makes six master's certificates in geometrical drawing, and two in building construction, held by the members of the drawing class of this institution. The prizes subscribed for by the friends of the class, known as our "Purchase prizes," are more numerous than usual, eleven having been awarded. The committee are highly gratified by these good results, and feel most thankful to Mr. Chapman, who has devoted himself for so many years to the gratuitous instruction of the drawing class. The arithmetic class is successfully continued, and the committee offer their best thanks to Mr. Duncan Shaw for giving his voluntary services in the conducting of it. The attendance upon the lectures was on the whole good. Public readings have been held, each one attended by a numerous and attentive audience.

EXAMINATION PAPERS, 1865.

(Continued from page 610.)

The following are the Examination Papers set in the various subjects at the Society's Final Examinations, held in April, 1865:—

LOGIC AND MENTAL SCIENCE.

THREE HOURS ALLOWED.

LOGIC.

1. State in detail what is treated of under the heads simple apprehension, judgment, and reasoning respectively.
2. What are the predicables, and what the predicaments? Give illustrations of both.
3. What is meant by the comprehension and what by the extension of a term? How are the two related to each other? Give examples.
4. Give the rules of definition and division. When is a division false?
5. In how many ways may propositions be converted? Give the rules of conversion for each class of propositions designated by the letters A, E, I, O, respectively.
6. Explain what is meant by the major, minor, and middle terms of a syllogism, with illustrations.
7. Evolve the following sentences into syllogisms,

pointing out in each case the major, minor, and conclusion:—(a). Many of the heathen philosophers recommended persecution, and therefore could not have been good men. (b). Because they are envious and ill-natured the censorious are generally detested. (c). Most of the learned in the fifteenth century believed in witchcraft, and must consequently have been very credulous persons.

8. How many figures are there? Give the special rules of each. In what mood and figure are the following syllogisms drawn? How are they symbolically designated?

All true penitents will find mercy.

Some true penitents have been great sinners.

Some who have been great sinners will find mercy.

Many philosophers have contradicted their principles by their practice.

All who do so are dishonest.

Some dishonest persons have been philosophers.

9. What is an enthymeme, an epicheirema, and a sorites? Give an example of each.

PALEY'S MORAL PHILOSOPHY.

1. State any arguments you can advance for or against a moral sense in man.
2. What is meant by utilitarianism? In what sense is Paley a utilitarian, and how does he differ from others?
3. In what, according to Paley, may we say that human happiness does and does not consist?
4. What is the object, the rule, and the motive of virtue respectively as stated by Paley?
5. Give Paley's definition and division of rights.
6. Give some account of the rise of property. Show its use, and on what specific right it is founded.

MILL'S LOGIC OF INDUCTION.

1. Distinguish between induction strictly so called, and induction improperly so called.
2. Give Mill's view of the law of causation. Is his theory of causation universally held? What other theories have been propounded?
3. Explain the four methods of experimental inquiry according to Mills' analysis, and give the canon of each.
4. What is an hypothesis? What is its use in philosophical inquiry? What errors must be guarded against in its use?
5. Explain Mills' view of the nature and uses of analogy in philosophical researches.

STEWART'S PHILOSOPHY OF THE HUMAN MIND.

1. State any of the advantages arising from the study of the human mind, and the method by which it should be conducted.
2. Give a brief sketch of Reid's controversy on perception, and the conclusions to which he arrived.
3. Give a philosophical definition of abstraction, and then sketch the views of the nominalists and realists respectively.
4. What is meant by the association of ideas? Give a classification of the laws of association.
5. State what Stewart says on the different kinds of memory, and the means by which memory may be cultivated.
6. Distinguish between conception and imagination. Give illustrations of both.

BUTLER'S SERMONS.

1. What does Butler mean by human nature, and of what elements does he affirm it to consist?
2. Give his reasons for asserting the supremacy of conscience as a principle of human action.
3. In what sense may a person who follows his appetites *only*, be said to act contrary to nature?
4. Give a concise abstract of Butler's whole argument, to show that human nature, rightly interpreted, leads invariably to the practice of virtue.

LATIN AND ROMAN HISTORY.

THREE HOURS ALLOWED.

SECTION I.

Translate:—

At regina, nova pugnae conterrita sorte,
 Flebat et ardentem generum moritura tenebat :
 “ Turne, per has ego te lacrimas, per si quis Amatae
 Tangit honos animum—spes tu nunc una, senectae
 Tu requies miserae, decus imperiumque Latini
 Te penes, in te omnis domus inclinata recumbit—
 Unum oro : desiste manum committere Teucris.
 Qui te cumque manent isto certamine casus,
 Et me, Turne, manent : simul haec invisa relinquam
 Lumina, nec generum Aenean captiva videbo.”
 Accepit vocem lacrimis Lavinia matris
 Flagrantem perfusa genas, cui plurimus ignem
 Subiecit rubor, et calefacta per ora cucurrit.
 Indum sanguineo veluti violaverit ostro
 Si quis ebur, aut mixta rubent ubi lilia multa
 Alba rosa : tales virgo dabat ore colores.

1. Parse fully, giving both syntax and accidence, the words *sorte, lumina, lacrimis, genas, cui, violaverit*.
2. Give the present and perfect tenses indicative active and the supines of the verbs *tangit, committere, manent, relinquam, videbo, dabat*.

SECTION II.

Translate:—

Ac velut immissi diversis partibus ignes
 Arentem in silvam et virgulta sonantia lauro,
 Aut ubi decursu rapido de montibus altis
 Dant sonitum spumosi amnes et in aequora currunt,
 Quisque suum populatus iter : non segnius ambo
 Aeneas Turnusque ruunt per proelia ; nunc, nunc
 Fluctuat ira intus, rumpuntur nescia vinci
 Pectora ; nunc totis in vulnera viribus itur.
 Murranum hic, atavos et avorum antiqua sonantem
 Nomina, per regesque actum genus omne Latinos,
 Praecipitem scopulo atque ingentis turbine saxi
 Executit effunditque solo : hunc lora et juga subter
 Provolvere rotas ; crebro super ungula pulsu
 Incita nec domini memorum proculcat equorum.

1. Parse fully, giving both syntax and accidence, the words—*partibus, lauro, sonitum, quisque, vinci, turbine, provolvere, domini*.
2. Give the present and perfect tenses indicative active and the supines of the verbs *currunt, rumpuntur, executit, effundit*.
3. Explain the construction of “*itur*,” and mention any other verbs that are used in the same way.

SECTION III.

Translate:—

“ Saepe audivi a majoribus natu, qui se porro pueros a senibus audisse dicebant, mirari solitum C. Fabricium, quod, quum apud regem Pyrrhum legatus esset, audisset a Thessalo Cineas esse quemdam Athenis, qui se sapientem profiteretur, eumque dicere omnia, quae faceremus, ad voluptatem esse referenda. Quod ex eo audientes M. Curium et Ti. Coruncanum optare solitos ut id Samnitibus ipsique Pyrrho persuaderetur, quo facilius vinci posset, quum se voluptatibus dedissent. Vixerat M. Curius cum P. Decio, qui quinquennio ante eum consulem se pro re publica quarto consulatu devoverat : norat eundem Fabricius, norat Coruncanius : qui quum ex sua vita tum ex ejus, quem dico, Decii facto judicabant esse profecto aliquid natura pulcrum atque praeclarum quod sua sponte peteretur quodque spreta et contempta voluptate optimus quisque sequeretur.”

1. Parse fully, giving both syntax and accidence, the words—*pueros, Athenis, omnia, Samnitibus, naturā, voluptate*.
2. Give the present and perfect tenses indicative active and the supines of the verbs *dicebant, faceremus, persuaderetur, vixerat*.

3. Explain why *audisset, profiteretur, persuaderetur, peteretur*, are in the subjunctive mood.

SECTION IV.

Translate:—

“ Haec igitur lex in amicitia sancitur, ut neque rogemus res turpes nec faciamus rogati. Turpis enim excusatio est et minime accipienda quum in caeteris peccatis tum si quis contra rem publicam se amici causa fecisse fateatur. Etenim eo loco, Fanni et Scaevola, locati sumus, ut nos longe prospicere oporteat futuros casus rei publicae. Deflexit jam aliquantulum de spatio curriculoque consuetudo majorum. Ti. Gracchus regnum occupare conatus est vel regnavit is quidem paucos menses. Num quid simile populus Romanus audierat aut viderat? Hunc etiam post mortem secuti amici et propinqui quid in P. Scipione effecerint sine lacrimis non queo dicere. Nam Carbonem quocumque modo potuimus propter recentem poenam Ti. Gracchi sustinimus. De C. Gracchi autem tribunatu quid expectem non libet augurari : serpit deinde res, quae proclivius ad perniciem, quum semel coepit, labitur.”

1. Parse fully, giving both syntax and accidence, the words—*sancitur, casus, majorum, menses, Carbonem, perniciem*.
2. Give the present and perfect tenses indicative active and the supines of the verbs *prospicere, effecerint, queo, sustinimus*.
3. Explain why *rogemus, fateatur, oporteat, effecerint*, are in the subjunctive mood.

SECTION V.

1. What was the duty of the Censor? Mention any noted Censors. When was the office instituted, and when opened to the plebeians?
2. Give an account of Spurius Cassius, and of the Agrarian Law which made him famous.
3. What were the laws of the twelve tables? What was their general character?
4. Write a short history of Camillus.
5. What was the original Roman law of debt? How was it modified? and under what circumstances.
6. Give an account of the first Samnite war.

SECTION VI.

1. How was the Roman senate filled in ordinary times? Mention any special cases.
 2. Give an account of Tiberius Gracchus.
 3. What effect had slavery on Roman politics?
 4. Give an account of the fall of Carthage.
 5. Write a short history of Sulla.
 6. In the time of Julius Caesar was the aristocratic or the democratic party the champion of liberty? And why?
- (To be continued.)

LEGAL POSITION OF INSTITUTIONS.

The following summary of the Literary and Scientific Institutions Act, 1854 (17 and 18 Vict., c. 112), was prepared for the Yorkshire Union of Mechanics' Institutes, and is published for the information of Committees of Institutes generally:—

ACQUISITION OF LAND.

Section 1.—Any person, being seised in fee simple, fee tail, or for life, of and in any manor or lands of freehold, copyhold, or customary tenure, and having the present beneficial interest therein, may grant, convey, or enfranchise, by way of gift, sale, or exchange, in fee simple, or for a term of years, any quantity not exceeding one acre of such land, whether built upon or not, as a site for any such Institution, as hereinafter described.

Section 33.—The Act shall apply to every Institution for the time being established for the promotion of science, literature, the fine arts, for adult instruction, the diffusion of useful knowledge, the foundation or maintenance of libraries or reading-rooms for general use among the

members or open to the public, of public museums, galleries of art, &c.

Section 5 enables equitable owners to convey without their trustees;—provides for grants of property belonging to infants and lunatics.

Section 6 enables corporations and trustees for public and other purposes to make grants.

Section 12 incorporates 13 and 14 Vict., c. 28:—"An Act to render more simple and effectual the Titles by which Congregations or Societies for Purposes of Religious Worship or Education in England and Ireland hold Property for such Purposes."

Section 13.—All grants, conveyances, and assurances of any site for an Institution under the provisions of this Act may be made according to the form following, or as near thereto as the circumstances will admit:—

"I, or We, [or the corporate title of a corporation] under the authority of an Act passed in the eighteenth year of Her Majesty Queen Victoria, entitled 'The Literary and Scientific Institutions Act, 1854,' do hereby freely and voluntarily, and without any valuable consideration [or do in consideration of the sum of _____ to me, or us, or the said _____], grant and convey [add, if necessary, enfranchise] to all [description of the premises] and all [my, or our, or the right, title, and interest of the _____] to and in the same and every part thereof, to hold unto and to the use of the said _____ and their successors, or of the said _____ and his or their [heirs, or executors, or administrators, or successors], for the purposes of the said Act, and to be applied as a site for _____ and for no other purpose whatever; such _____ to be under the management and control of [set forth the mode in which, and the persons by whom, the Institution is to be managed and directed; in cases where the land is purchased, exchanged, or demised, usual covenants or obligations for title may be added]. In witness thereof the conveying and other parties have hereunto set their hands and seals, [or seals only, as the case may be], this _____ day of _____ Signed, sealed, and delivered by the said _____ in the presence of _____"

And no bargain and sale, or delivery of seisin, shall be requisite in any conveyance intended to take effect under the provisions of this Act, nor more than one witness to the execution by the conveying party.

SECURITY OF PROPERTY.

Section 20.—Where any Institutions shall be incorporated, and have no provision applicable to the personal property of such Institution, and in all cases where the Institution shall not be incorporated, the money, securities for money, goods, chattels, and personal effects belonging to the said Institution, and not vested in trustees, shall be deemed to be vested for the time being in the governing body of such Institution, and in all proceedings, civil and criminal, may be described as the moneys, securities, goods, chattels, and effects of the governing body of such Institution by their proper title.

Section 21.—Any Institution incorporated which shall not be entitled to sue and be sued by any corporate name, and every Institution not incorporated, may sue or be sued in the name of the president, chairman, principal secretary, or clerk, as shall be determined by the rules and regulations of the Institution, and, in default of such determination, in the name of such person as shall be appointed by the governing body for the occasion;

Provided, that it shall be competent for any person having a claim or demand against the Institution to sue the president or chairman thereof, if, on application to the governing body, some other officer or person be not nominated to be the defendant.

Section 24.—In any Institution the governing body, if not otherwise legally empowered to do so, may, at any meeting specially convened according to its regulations, make any bye-law for the better governance of the Institution, its members or officers, and for the furtherance of its purpose and object, and may impose a reasonable pecuniary penalty for the breach thereof, which penalty, when accrued, may be recovered in any local court of the district wherein the defendant shall inhabit, or the Insti-

tion shall be situate, as the governing body thereof shall deem expedient;

Provided always, that no pecuniary penalty imposed by any bye-law for the breach thereof shall be recoverable unless the bye-law shall have been confirmed by the votes of three-fifths of the members present at a meeting specially convened for the purpose.

Section 25.—Any member who may be in arrear of his subscription according to the rules of the Institution, or may be or shall possess himself of or detain any property of the Institution in a manner or for a time contrary to such rules, or shall injure or destroy the property of the institution, may be sued in the manner hereinbefore provided.

Section 26.—Any member of the Institution who shall steal, purloin, or embezzle the money, securities for money, goods, and chattels of the Institution, or wilfully and maliciously, or wilfully and unlawfully, destroy or injure the property of the Institution, or shall forge any deed, bond, security for money, receipt, or other instrument, whereby the funds of the Institution may be exposed to loss, shall be subject to the same prosecution, and if convicted, shall be liable to be punished in like manner, as any person not a member would be subject and liable to in respect of the like offence.

Section 31.—For the purposes of this Act, a member of an Institution shall be a person who, having been admitted therein according to the rules and regulations thereof, shall have paid a subscription, or shall have signed the roll or list of members thereof;

But in all proceedings under this Act no person shall be entitled to vote or be counted as a member whose current subscription shall be in arrear at the time.

Section 32.—The governing body of the Institution shall be the council, directors, committee, or other body to whom by Act of Parliament, charter, or the rules and regulations of the Institution, the management of its affairs is intrusted;

And if no such body shall have been constituted on the establishment of the Institution, it shall be competent for the members thereof, upon due notice, to create for itself a governing body to act for the Institution thenceforth.

EXEMPTION FROM LOCAL RATING.

By the 6 and 7 Vict., c. 36, intitled "An Act to exempt from County, Borough, Parochial, and other local Rates, Land and Buildings occupied by Scientific or Literary Societies," July, 1843, it is enacted:—

Section 1.—No person or persons shall be assessed or rated, or liable to be assessed or rated, or liable to pay, to any county, borough, parochial, or other local rates or cesses, in respect of any land, houses, or buildings, or parts of houses or buildings, belonging to any Society instituted for purposes of science, literature, or fine arts exclusively, either as tenant or as owner, and occupied by it for the transaction of its business, and for carrying into effect its purposes;

Provided that such Society shall be supported wholly or in part by annual voluntary contributions, and shall not, and by its laws may not, make any dividend, gift, or division, or bonus in money unto or between any of its members.

And provided also that such Society shall obtain the certificate of the barrister-at-law, as hereinafter mentioned.

Section 2.—Before any Society shall be entitled to the benefit of this Act, such Society shall cause three copies of all laws, rules, and regulations for the management thereof, signed by the president, or other chief officer, and three members of the council or committee of management, and countersigned by the clerk or secretary of such Society, to be submitted to the barrister-at-law appointed to certify the rules of friendly societies.

One of such copies, when certified by such barrister, shall be returned to the Society, another copy shall be retained by such barrister, and the other shall be trans-

mitted by such barrister to the clerk of the peace for the borough or county where the land or buildings shall be situate, and shall by him be laid before the recorder or justices for such borough or county at the general quarter sessions or adjournment thereof, held next after the time when such copy shall have been so certified and transmitted to him as aforesaid;

And the recorder or justices then and there present are hereby authorised and required, without motion, to allow and confirm the same.

And such copy shall be filed by such clerk of the peace with the rolls of the sessions of the peace in his custody, without fee or reward.

Section 4.—The fee payable to such barrister shall not, at any one time, exceed the sum of one guinea.

Section 5.—In case any such barrister shall refuse to certify the rules as aforesaid, the Society may submit them to the recorder or justices at quarter sessions, who shall and may, if he or they think fit, order the same rules to be filed.

Section 6.—Any person or persons assessed to any rate from which any Society shall be exempted by this Act, may appeal from the decision of the said barrister in granting such certificate as aforesaid to the said court of quarter sessions, within four calendar months next after the first assessment of such rate made after such certificate shall have been filed as aforesaid, or within four calendar months next after the first assessment of such rate made after such exemption shall have been claimed by such Society, such appellant first giving to the clerk or secretary of the Society in question, twenty-one days previously to the sitting of the said court, notice in writing of his intention to bring such appeal, together with a statement in writing of the grounds thereof, and within four days after such notice entering into a recognisance before some justice, with two sufficient sureties, to try such appeal at, and abide the order of the said court, and pay such costs as shall be awarded.

And the determination concerning the premises shall be conclusive and binding on all parties.

RAISING A BUILDING FUND.

In many places there are great difficulties in raising funds for a building for an Institute by donations. It may, therefore, be necessary to add to donations by small redeemable shares payable by monthly instalments. The following is a form of prospectus for that purpose:—

MECHANICS' INSTITUTION BUILDING COMPANY, LIMITED.

CAPITAL, £....., inShares of £1 each.

Deposit, 1s. each Share.

CHAIRMAN.

TREASURER.

DIRECTORS.

THE COMMITTEE OF THE INSTITUTION.

It is proposed to raise a sum of £..... for the purchase of a site, and the erection of a building for the Mechanics' Institution, and other public purposes.

All donations and other sums of money available for a building shall be invested in paid-up shares, to be the property of the Institution.

All other shares to complete the amount required shall be paid by monthly instalments of one shilling each share, until the share be fully paid.

Shareholders shall be allowed interest at the rate of 5 per cent. per annum, to commence from the payment of the final instalment.

The Committee of the Institution shall from time to time, as they may be in possession of funds, be allowed to redeem the shares by payment of the full amount to the shareholders, and the shares redeemed shall be the property of the Institution.

In the event of the committee being able to redeem more

shares than the shareholders shall offer for redemption, or if more shares be offered than the committee be able to redeem, the particular shares to be redeemed shall be determined by lot. The building shall be commenced as soon as the required number of shares shall be subscribed for.

Donations to the building fund may be in money or shares.

Application for shares may be made to any member of the committee, or to

..... Secretary.

WEST LONDON INDUSTRIAL EXHIBITION.

The closing of this Exhibition was celebrated by a concert, held in the Floral Hall, Covent Garden, on Monday evening last. The choir of the London Choral Union gave their services on the occasion, as did also various well-known vocalists and instrumental performers.

During an interval of the concert, Mr. J. A. Nicholay, the chairman, accompanied by Mr. Morell, the secretary, and several members of the committee, appeared upon the platform to present their report to the meeting. From this it appeared that the exhibition was originated on a small scale in Marylebone; but, such was the desire manifested by those interested in it to send contributions to the intended collection, that efforts were made to obtain a large room, and so to increase the magnitude of the display. Failing in several applications to rent public halls, the committee determined to build a temporary place on a piece of vacant ground, but in this they were subject to the control of the Board of Works, and ultimately had to abandon the attempt and pay £100 as compensation. Then it was that, after some negotiation with Mr. Gye, they agreed to pay that gentleman £1,000 for the use of the Floral Hall for three months, and to give him also one-fourth of the proceeds of the exhibition. There were no fewer than 1,092 exhibitors. The inaugural ceremony was performed by the Right Hon. W. F. Cowper, First Commissioner of Works, assisted by the Archbishop of York and others. By the terms of their agreement, the committee were obliged to charge one shilling for admission, and to this they attribute a feeling approaching opposition by the working classes themselves, who considered they were practically excluded by this price. There was no counterbalance of patronage by the upper and middle classes, and at length the charge for admission was reduced to 6d. and to 3d. Music, given by amateurs of more than ordinary excellence, was introduced, and proved to be so great a source of attraction that the committee began to entertain sanguine hopes of success. Here (as stated in the report) the agents of the Duke of Bedford, the proprietor of the premises, interfered, and forbade the musical performances, alleging first that the holders of the neighbouring property objected, and, secondly, falling back upon the conditions of the lease to Mr. Gye. The hall, therefore, became silent, and was gradually almost deserted. The number of visitors who paid for admission during the three months was 84,253; the receipts from all sources were £1,800; the expenditure is estimated at £3,000. The committee therefore regret that necessity compels them to have recourse to the funds provided by the guarantors; and in concluding their report they thank those gentlemen and all who have rendered aid.

GOLD AND SILVER MONEY IN FRANCE.

The French writers on economical and financial subjects have recently collected much interesting information on the subject of the precious metals coined and in circulation, and on the exportation of gold and silver coin. It appears that during the period commencing with 1803 and ending with 1830 there were struck in France silver pieces, of the value of five francs each, to the amount of 2,241,416,740 francs, or £89,656,669 12s. In 1848 the stock of gold and silver in France was of the value of about 80 millions of francs in gold, and 2,150 millions in

silver coin; in 1856 it had risen to 2,304 millions in gold and to 2,576 millions in silver, or together about £195,200,000. A considerable reduction has to be made, however, from this total on account of the money which from various causes was re-coined. Between 1856 and 1865 the quantity of gold and silver in circulation was considerably diminished by French subscriptions to railways and other public works abroad, amounting to about a thousand millions of francs, by loans to foreign powers, by expenses in Algeria, Cochin China and other dependencies; by the outlay in the Isthmus of Suez; the purchase of Russian corn, and that of cotton; by the cost of the expeditions to Syria and Mexico; and by the drain caused by the war in America. The actual stock of gold and silver coin in circulation in France in 1864 has been estimated at about £120,000,000.

The import and export of the precious metals, including as it does a considerable quantity of uncoined metal, does not give an exact idea of the increase and diminution in the stock of money, and there is moreover a large amount carried from one country to another by private individuals which does not appear in the official returns. The total amount of gold and silver imported into France, during the period from 1846 to 1864, both included, was equal to £352,960,000, and the exports to £253,723,000, thus showing a large balance in favour of France. The elements for comparison with England are not before us, except for the period beginning with 1858 and ending with 1863, but it appears that during that time, while France received more than twelve hundred millions of francs in excess of her exportation, the imports of the precious metals into England exceeded the exports by rather less than a quarter of that sum. The amounts of the gold and silver in actual circulation in the principal states of the world in 1864 are estimated roughly as follow, in millions of francs:—

	1848.	1856.
France	2,230 ...	4,886
England	1,260 ...	1,665
United States of America ...	1,005 ...	1,200
Holland and Belgium	642 ...	642
Italy.....	425 ...	605
Spain	450 ...	575
Prussia	445 ...	450
Austria.....	375 ...	400
Russia	200 ...	450
Sweden and Norway	225 ...	225

The annual yield of all the gold and silver mines in the world is about a hundred millions of francs, of which the gold of Russia, Australia, and California, constitutes considerably more than half, and the silver of America nearly a quarter. Rather more than a quarter of the whole is employed in manufactures, and the rest is converted into money.

The enormous absorption of silver by the eastern states of the world is one of the most remarkable facts in the history of the precious metals. From the earliest historic times the East has taken little else but silver for its commodities. In the time of Pliny, the exportation of precious metals from the West was set down at from £80,000 to £100,000 a year. The Romans had their chief entrepot for the East in the Island of Taprobane, now called Ceylon, and they carried on a considerable commerce with the Indians, Persians, and Ethiopians; the shawls and stuffs of the East found their way to Europe long before the time of the crusades; the Arabs carried on a large and regular trade in these and other Asiatic productions, till the discovery of the Cape of Good Hope diverted the course of commerce; and the establishment of the overland route has operated to some extent in the other direction; but however and by whom the trade has been carried on, the flow of silver has been generally from the West towards the East. Humboldt calculated that in the year 1800, the amount of silver sent eastward annually was between five and six millions sterling. Between 1830 and 1853, the large amount of Sycee silver

received from China, and the export of great quantities of English goods to India, disturbed the flow of silver eastward, which has, however, since set in with more determination than ever. In 1856, the balance in favour of the East was about six millions sterling. The exportation of the precious metals from Great Britain alone, during the seven years ending with 1858, was more than seven millions per annum, of which all but about one-eighth part was in silver. At the present time the balance of the imports and exports of gold and silver in favour of the East is calculated at from twelve to sixteen millions sterling per annum, or more than the total yield of all the silver mines in the world. The enormous production of gold in Australia and California has heretofore enabled the Western nations to part with their silver without great inconvenience, but the present rate of export of the latter seems to demand some new arrangement if any be practicable. Nearly all Orientals are given to hoarding. It is believed, says M. Villiaumé, the French economist, that the Egyptians hide away annually nearly four millions sterling. The Emperors of Morocco hold it a point of honour to fill as many chambers as possible with gold and silver; the present Emperor is said to have filled seventeen, and to have another in course of being filled. Morocco never parts with the money it receives; and it is said, on the faith of respectable witnesses, that more than 2,650 millions of francs (£106,000,000) are hoarded away in that country, and that the Emperor's treasure is of the value of at least £40,000,000.

Fine Arts.

PARIS SCHOOLS AND EXHIBITIONS.—The works sent home by the pupils of the French Academy at Rome were exhibited publicly in the new rooms of the School of Fine Arts in Paris on the 17th instant, and were to remain on view until the 24th. The medals and decorations awarded by the jury of the Salon of the present year, and the prizes gained by the pupils in the École des Beaux-Arts, were distributed on the 14th instant by the Minister of the Fine Arts, supported by the various officers connected with the administration of the galleries of art, and the members of the various juries. M. Nanteuil, of the Institute, and M. Amaury Duval, painter, were promoted to the grade of officers of the Legion of Honour; and Messieurs Moreau, sculptor; Langée, Hillemacher, De Curzon, G. R. Boulanger, Chaplin, Protais, and De Winne, of Belgium, painters, were made chevaliers of the same order. In his speech on the occasion, the Minister spoke in high terms of the works exhibited by foreign painters at the last Salon, but claimed for the French School decided superiority in sculpture. He exhorted artists not to be led away by the public taste for works of a secondary character, far too numerous at present, but to give more attention and to lead their pupils to the study of higher art and the cultivation of pure taste. The Minister announced also that in future the productions of the pupils of the schools of Paris and Rome would be exhibited not only, as at present, in the galleries of the École des Beaux-Arts, but also at each succeeding annual exhibition. M. Robert Fleury, Director of the New School of Fine Arts, gave a highly satisfactory account of the progress of that establishment. He referred to the ateliers for painting, sculpture, architecture, and line and medal engraving, and said that they were all in full operation and well attended; that there were evening classes for the study of design; that the number of courses had been increased, and that professors and pupils generally exhibited remarkable zeal. He announced the opening of a large lecture theatre; the commencement of courses of instruction in science applied to the arts, in order to afford young architects a knowledge of the physical laws affecting the materials required in their profession; the establishment of spacious galleries containing

casts from the antique; and the opening of the library of the school. The Commission of the Universal Exhibition of 1867 has given notice to industrial artists, decorative painters, cameo engravers, lithographers, sculptors, decorators, and others, to apply immediately for the space they desire to secure at the Exhibition. The Committee of Admission for this class consists of M. Berrus, shawl designer; M. Braquenie, carpet manufacturer; M. Diéterle, decorative artist; M. Delamarre; M. Labouret, architect; M. Ed. Taigny, maître des requêtes. The gallery at the Luxembourg has been re-arranged, and was re-opened the other day to the public. The following recent acquisitions have been added to the collection:—"Amymoné carried off by Naiads," Giacomotti; "Communion of the Apostles," E. Delaunay; "Saint Jean de Dieu, founder of the order of that name," E. Lafon; "Tobias and the Angel," Gustave Doré; "Hunting in the marshes of Berry," Busson; "Saint Sebastien," Ribot; "A Fête at Genazano," Archenbach; "A charge of artillery," Scheyer; "The Chase," Aligny; "A landscape," Mademoiselle Sarazin de Belmont; "The Infancy of Bacchus," Ranvier; "A marine piece," M. de Valdrome; "The labourer and children," Duverger; "Les Précieuses Ridicules," Vetter; "Lacemakers at Asnières-sur-Oise," Paul Soyer; "Evening Prayer in the Sahara," Guillaumet. With the exception of the last-named picture, the whole of the above were purchased from the Salon of the present year.

SALE OF THE ESSINGH COLLECTION.—A celebrated collection of works of art and curiosity, that of the late Mr. Antoine Joseph Essingh, of Cologne, is announced for sale in September, commencing on the eighteenth of the month. Mr. Essingh spent a portion of his life in France and the rest in Prussia; he was originally a member of a commercial firm of high standing in Cologne, that of H. J. Essingh and Co., but retired early, and gave himself up entirely to matters of art. The catalogue includes considerably more than two thousand items. There are some very fine engravings; a curious collection of illuminated manuscripts and miniatures; rare examples of German, Venetian, and other glass; china, *faïences*, and pottery, of all countries; some fine enamels; a large collection of Chinese and Japanese productions; carved works in ivory, wood, and stone; a few Greek and Roman antiquities; some remarkably fine specimens of painting on glass; ancient arms, embroidery, furniture, and miscellaneous articles. The pictures are more than 300 in number, and include examples of nearly all the schools—Italian, Spanish, German, Dutch, Flemish, and French.

A PICTURE BY LEONARDO DA VINCI, of the originality of which the owner has no doubt, is now in possession of Mr. C. F. Dennet, of Ladbroke-square, a member of the Society, who is desirous of submitting it to the notice of connoisseurs and others interested in the formation of public or private galleries. The subject is "The Daughter of Herodias receiving the head of John the Baptist."

Manufactures.

MINERAL STATISTICS FOR 1864.—The statistical tables of the produce of the mines of the United Kingdom during the past year have been lately published, having been prepared under the direction of Mr. Robert Hunt, F.R.S. It appears that during 1864, 3,268 collieries in Great Britain and Ireland produced 92,787,873 tons of coal. Of this quantity, 8,800,420 tons were exported, being an increase of 525,208 tons over the exportations of the preceding year. There were 2,351,342 tons brought to London in 1864, and 1,786,713 tons in 1863. 10,064,890 tons of iron ore were produced from the mines of this country, and there were imported 75,194 additional tons. The total quantity fed 612 blast-furnaces, which produced 4,767,951 tons of pig-iron. There were exported 465,951 tons, and the rest was worked up at 127 iron-works, where 6,262 puddling fur-

naces were in action, and 718 rolling-mills. The 192 mines in the South-West of England, and the 30 distributed over other parts of the United Kingdom, produced 214,604 tons of copper ore, which yielded 13,302 tons of metallic copper. The produce of lead ore, principally galena, was 94,433 tons, which yielded 91,283 tons of lead, and 641,088 ounces of silver. Of zinc ores, nearly all being the sulphide of zinc, 15,047 tons were obtained, producing 4,040 tons of metal. Of iron pyrites, used in our sulphuric acid and soda works, there were procured 94,458 tons. The tin mines produced more tin in 1864 than in any previous year; 15,211 tons were raised, which yielded 10,108 tons of metallic tin. During 1864, gold was obtained from five mines in Merionethshire. These produced 2,336 tons of auriferous quartz, which yielded 2,887 ounces of gold; and it is stated that, in consequence of various improvements in amalgamation, due to Mr. W. Crookes, it is highly probable that the production of British gold will be considerably increased during the current year. The gross value of the foregoing mineral products was £39,979,837.

Colonies.

AGRICULTURE IN SOUTH AUSTRALIA.—The approximate agricultural statistics for the year ending the 31st March, 1865, are as follows:—During the year there has been an increase in the number of holdings exceeding one acre of 743; a total increase in the quantity of freehold land alienated from the Crown of 462,264 acres; and a decrease in the quantity of rented land occupied of 14,056 acres. There is an increase in the extent of enclosed land of 786,036 acres; and a decrease in the quantity under tillage of 31,352 acres. Coming to the yield of the following descriptions of crops, it appears that, as compared with the previous year, wheat shows an increase of 521,971 bushels; oats show a decrease of 835,753 bushels; barley a decrease of 13,848 bushels; maize a decrease of 28,914 bushels; rye and bere an increase of 2,278 bushels; and peas, beans, millet, and sorghum an increase of 22,354 bushels. On the crop of cereals, peas, and beans there is a total comparative deficiency of 331,932 bushels, chiefly caused by the large falling off in oats. In green crops there has been an increase as compared with the previous year of 17,754 tons, consisting chiefly of potatoes. In hay there is an increase of 24,265 tons. Onions show a falling off of 898 cwt. There is an increase in the number of vines planted of 1,247,728, but a decrease in the quantity of grapes gathered and made into wine or brandy of 2,797 cwt.; and there is also a falling off in the quantity of grapes made into wine or brandy of 1,181 cwt.; and there is also a decrease in the quantity of wine produced of 15,691 gallons, but an increase in the quantity of brandy manufactured of 195 gallons. The average yield of wheat throughout the colony has been 14·7 bushels to the acre; of oats, 18·5 bushels; of potatoes, 1·9 ton; and of hay, 1·1 ton.

COTTON IN QUEENSLAND.—A colonial journal says that the success of cotton growing has this year surpassed all previous experience in the colony. The crop is good in quantity, and the quality excellent. The upland variety appears almost to have superseded the Sea Island in cultivation, a change probably owing to an equalisation of the bonus on either kind, and to the prevailing impression that the latter is harder and therefore better able to stand the chances of the season. Legislative sanction to payment of a bonus of £10 in land orders on every 300 lbs. net ginned cotton will expire in December next, but it is to be hoped it will be renewed at least for a year or two to create fresh encouragement owing to the losses during the last season.

FINANCE IN VICTORIA.—The Legislative Assembly has sanctioned a loan of £250,000. This amount was rendered necessary by the works on the Geelong line, which

was in very bad repair when it passed into the hands of Government. A loan of £500,000 has also been sanctioned for water supply for the colony generally. Of this amount £50,000 will be handed over to the West Commissioners for Ballarat, to complete their works. £150,000 will be set apart for the supply of Geelong, and the scheme for the service of the districts between Malmesbury and Epsom is estimated to cost £320,000.

NEW FRUIT IN QUEENSLAND.—Samples of the fruit of the *Flacourtia*, a tree not at present cultivated to any extent in this colony, have recently attracted attention. The fruit grows in clusters, something like the grape, and is nearly the size and colour of the black-heart cherry. The *flacourtia* is stated to be an evergreen shrub, or small tree, growing to the height of 10 feet. It is a native of the East Indies, and perfectly hardy in Brisbane, where it produces its fruit in great profusion. Being covered with a vast number of long thorns, it is well calculated for hedge planting, as it would, if properly trained when young, resist with equal success the attacks of both men and cattle. In its unripe state the fruit is astringent, and in taste somewhat resembles the wild sloe, but as it gets ripe it becomes of a very agreeable flavour. It ripens during April and May. It may be propagated by seeds, layers, and cuttings, the former being the most ready method. It may be planted in any average good garden soil at 10 feet distances, and, with very little trouble, will form a handsome shrub. The foliage being a dark green, and the young shoots a reddish brown, the effect is very good. There are other varieties, which are said to produce larger fruit, but they are not sufficiently known to warrant an opinion as to their quality and productiveness.

Notes.

SOCIAL SCIENCE CONGRESS.—The fourth session of the Congress to aid the progress of the social sciences, is announced to commence at Berne on the 28th inst., and to terminate on the 2nd of September. The committee announces that the subscription of members is 20 francs per annum, and that the card of membership not only confers the right of participating in the labours of the Congress, but gives the bearer the further advantage of a reduction of one-half the usual rates of conveyance by the *Chemin de Fer de l'Est* of France. MM. Guillaumin and Co., 14, Rue Richelieu, are authorized to grant cards of membership, but no London agent of the committee is named in the announcement.

QUEKETT MICROSCOPICAL CLUB.—This club, which is under the presidency of Dr. Edwin Lankester, F.R.S., has been established for the purpose of affording to microscopists, in and around the metropolis, opportunities for meeting and exchanging ideas without that diffidence and constraint which an amateur naturally feels when discussing scientific subjects in the presence of professional men. In the prospectus the promoters say:—"The want of such a club as the present has long been felt, wherein microscopists and students with kindred tastes might meet at stated periods to hold cheerful converse with each other, exhibit and exchange specimens, read papers on topics of interest, discuss doubtful points, compare notes of progress, and gossip over those special subjects in which they are more or less interested; where, in fact, each member will be solicited to bring his own individual experience, be it ever so small, and cast it into the treasury for the general good. Such are some of the objects which the present club seeks to attain. In addition thereto it hopes to organize occasional field excursions, at proper seasons, for the collection of living specimens, to acquire a library of such books of reference as will be most useful to inquiring students; and, trusting to the proverbial liberality of microscopists, to add thereto a comprehensive cabinet of objects." The ordinary meetings of the club are to be held on the fourth Friday of

every month, at eight o'clock in the evening, at 32, Sackville-street, Piccadilly. In order to place the advantages of this club within the reach of all, the annual subscription has been limited to ten shillings, without entrance fee. The Secretary, Mr. W. M. Bywater, will furnish all further particulars upon application by letter, addressed to 192, Piccadilly, W.

SCHOLASTIC REGISTRATION.—A committee of schoolmasters, appointed to consider this subject, has issued a circular-letter containing the principal provisions of the proposed "Scholastic Registration Bill," and giving a statement of the success which the movement in favour of it has already secured. The committee wishes to be prepared to assure the Government and the Legislature that schoolmasters generally are favourable to a Registration Act, and that while they desire to maintain the independence of their profession, and to promote its efficiency, they are equally anxious to advance the interest of education. Signature-sheets, therefore, accompany the letters, to be signed by those who are favourable to the principle of registration. The committee has unanimously resolved, after careful and long deliberation, to withdraw the clause which would prevent an unregistered person from recovering fees in a court of law, and to suggest that any penal enactment be restricted to the assumption by any unregistered teacher of such a title as would signify that he had been registered. The Hon. Secretary to the committee, Mr. Barrow Rule, of Aldershot, will be happy to give further information to any who may apply for it.

MEMORIAL TO THE LATE SIR JOSEPH PAXTON.—A Committee, which includes the Duke of Devonshire, the Duke of Sutherland, Earl Granville, Viscount Palmerston, the Right Hon. W. E. Gladstone, M.P., and many other influential names, has been formed for raising the necessary funds to erect a monument to perpetuate the memory of Sir Joseph Paxton. It is thought that no memorial can be more appropriate than a statue in marble, to be placed in the garden of the Crystal Palace at Sydenham. A most eligible site for this purpose presents itself, in the midst of the beautiful landscape garden with which Paxton's genius and name are so closely associated, and within sight of the Palace itself, and of the residence in which he passed a great part of the last ten years of his life. It is proposed to entrust the execution of the statue to Mr. Spence, of Rome, to whom Sir Joseph sat for a bust within a few months of his death. A general subscription list will be opened and contributions received, which may be of any amount so as to embrace a large number of subscribers, and thus give the memorial as wide and popular a character as possible. Subscriptions, with the name and address of the sender, are requested to be forwarded to Geo. Grove, Esq., Crystal Palace, Honorary Secretary, to whom all cheques and post-office orders may be made payable and postage stamps transmitted. Subscription lists have also been opened at the London and Westminster Bank; the London Joint Stock Bank; the London and County Bank; the Union Bank of London; Messrs. Coutts and Co.; Messrs. Drummond's; and Messrs. Herries, Farquhar, and Co.

HONOUR TO SCIENCE.—The Emperor of the French has lately nominated Mr. Claudet a *Chevalier de la Légion d'Honneur*. Mr. Claudet is one of the oldest members of the Society of Arts, is a Fellow of the Royal Society, and is well-known as the introducer of the Daguerreotype into this country and for his discoveries in connection with it, especially the use of chloride of bromine in the process, by means of which its rapidity was increased one hundred-fold. This discovery was communicated to the Royal Society in 1841, and it then became generally known and adopted. The increased facility thus afforded to the practice of the art helped mainly to bring it so largely into use.

RELIEF IN CANCER.—It is stated that Dr. Brandini, of Florence, has discovered a real alleviation for the torments caused by this malady. In his account of his discovery he says that one of his patients, aged 71, at the

hospital of Santa Maria della Scala, being afflicted with cancer on the tongue, in the midst of his torments asked for a lemon, the juice of which almost immediately diminished the pain. The patient, on finding this, asked for another on the following day, and it gave him still greater relief than before. This led Dr. Brandini to try citric acid itself, in a crystallised state. A gargle was composed of 4 gr. of the acid in 350 gr. of common water, and it entirely carried off the pain; on its reappearing the same remedy was repeated with the same success. In the course of a month this treatment not only delivered the patient from all suffering, but even reduced the swelling of the tongue very considerably. Dr. Brandini had also tried the same remedy in other cases with similar results.

THE EMPEROR'S PRIZE.—The grand prize given by the Emperor for the annual competition of the pupils of the Lycées, or high schools, of Paris and Versailles, is not a mere honorary award, but carries with it substantial benefits; the fortunate winner of it receives a large gold medal, on which his name and the object for which it was given are engraved, and also a copy of the Latin classics, splendidly bound, impressed on the sides with the Imperial arms, and with a special inscription. The Laureate is, moreover, relieved from the conscription—the cost of a substitute being at present 2,300 francs—and he may go through all the studies of the law, medicine, or other schools, without any expense whatever—privileges equal in value to from fifty to sixty pounds a year.

Correspondence.

VENTILATION.—SIR,—The note in your last number on this subject does not lead to any very decided solution of the great problem of how to keep down the temperature of public buildings, or how to furnish a dense crowd with pure air without introducing disagreeable or even dangerous drafts. All the endeavours of General Morin confessedly failed, and the double envelope proposed by M. Regnault would only have the effect of slightly lowering the internal temperature when the building is exposed to the intense heat of the sun, in no way conducing to the supply of pure air, and a mode of construction that would be of no avail during the night hours. Continued watering of the roof is a most vicious plan, because it tends to check the natural alacrity of heated air to rise. As long as we insist on having our ceilings made air-tight with lath and plaster, or otherwise, we shall discover no real or permanent remedy for the heat, stifling air, and water running down the walls of our public buildings, a certain sign of the absence of ventilation, when crowded with human beings. Our courts of law and justice are wretched examples of either total absence of ventilation, or of such miserable expedients as amount to nothing. Their state is much aggravated because the mephitic vapour exhaled by raving counsel, anxious clients, prosecutors, criminals and witnesses, is far greater than under ordinary circumstances. Let the ceilings be of lath only, without the plastering, and so construct the roof as to render it a ventilator throughout every portion of it, then the foul and heated air will rise bodily from the whole area of the room and disperse itself in the atmosphere, while no water will be found running down the walls into pools on the floor as I have frequently seen it. Fresh air is sure to find its way in somewhere, or at any rate a band of perforated zinc several feet broad all round the four walls of the room at a proper height from the floor, would ensure that object. I speak from experience, having been present at a ball, given in the hottest season, in an unfinished building of which the ceilings were only lathed—not plastered—and, notwithstanding the lights and company, the atmosphere of the rooms was as cool as the outward air.—HENRY W. REVELEY.

Patents.

From Commissioners of Patents Journal, August 18th.

GRANTS OF PROVISIONAL PROTECTION.

Bags, travelling and other—2001—H. Frankenburg.
Brewing, distilling, and drying yeast—2019—P. Robertson.
Bridges, sliding or rolling—1934—M. Kenney.
Coke ovens—2013—W. Morgans.
Electric telegraphic apparatus—2047—L. J. Crossley.
Fire-arms, breech loading—2063—S. Law.
Fog horns, securing the tongues or reeds of—2011—W. H. Brookes.
Gunpowder, unexplosive—2057—J. Gale.
Gun wipers—2031—A. V. Newton.
Horse shoes, &c., machinery for making—2017—L. Anderson.
Letters, &c., transportation and delivery of—2049—A. V. Newton.
Motive power engine, &c., apparatus applicable as a—2021—W. Clark.
Numerical registering machine—2036—S. Buxton.
Paints—2015—E. L. Ransome.
Printing in colours, machinery for—1978—A. Applegarth.
Railway carriages—1746—L. Faure.
Railway carriages and trains, retarding or stopping—2045—J. Mead.
Railway carriages and wagons, self-acting coupling for—2037—T. Smith and J. Brook.
Railways, signalling on—2000—J. Pickin and R. Bailey.
Railways, signals for—2009—E. S. Horridge.
Revolver pistols—2027—H. A. Bonneville.
Roads, steam locomotion on—1002—W. E. Gedge.
Salts, &c., manufacture and applying of—1905—J. H. Chaudet.
Screw threads on pipes, portable machine for cutting—2056—T. G. Messenger.
Sewing machines—1904—A. Smith.
Sewing machines—2067—B. Russ and E. Gandell.
Sewing machines, binders for—2033—G. B. Woodruff.
Ships' boats, sustaining and lowering—2041—C. H. Simpson.
Slide valves, relieving of back pressure—1069—J. W. Longstaff.
Steam, generating—2051—M. P. W. Boulton.
Submarine telegraphic cables—2025—F. G. Mulholland.
Sugar, &c., filtering—2023—J. A. Leon, G. Tessimond, & J. Kissack.
Water, raising of—1918—W. E. Gedge.
Weaving, looms for—2061—T. R. Shaw.
Yarns and fabrics, printing and dyeing—2053—J. Buchanan & R. Boyd.

INVENTION WITH COMPLETE SPECIFICATION FILED.

Grain and seed, apparatus for ascertaining the quality and condition of—2098—W. Bunger.

PATENTS SEALED.

484. C. Baulch.	523. S. W. Worssam.
493. J. Hulley.	526. J. Hundy.
494. J. Dodgeon, J. Gaukroger, and W. Shackleton.	529. J. Badcock.
498. J. Carter.	534. F. Claudet.
499. G. N. Shore.	569. J. B. Toussaint.
500. J. Nicholas.	567. R. Mushet.
501. M. P. W. Boulton.	568. E. Carchon.
502. D. Barr.	1318. G. Haseltine.
510. J. G. Hughes.	1422. C. T. Moller.
511. S. Saville.	1499. W. E. Newton.
516. J. Jacob and R. Pilzinger.	1695. G. Haseltine.
	1609. A. E. Brae.

From Commissioners of Patents Journal, August 22nd.

PATENTS SEALED.

504. G. Sinclair.	551. R. Barclay.
518. C. W. Lancaster.	559. J. M. Hart.
524. J. Shortridge.	568. T. S. Hall.
525. C. J. Rowe.	581. J. Park.
531. E. P. H. Gondouin.	663. W. J. Dornier.
532. T. Routledge and T. Richardson.	690. T. Whitehead and H. W. Whitehead.
533. J. H. Rawlins & J. Chappell.	692. E. B. Wilson.
537. J. Askew.	708. F. A. Braendlin.
541. R. Smyth.	736. J. Ramsbottom.
542. C. Whiting.	1282. R. H. Tweddell.
548. M. B. Nairn.	1631. J. H. Johnson.
550. T. W. Roys and G. A. Lilliendahl.	1677. W. E. Newton.

PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

2305. J. H. Johnson.	2327. W. Whittle.
2307. H. Garside.	2344. W. Barrett.
2328. J. G. Tongue.	2398. J. Davis.
2331. J. Standish.	2357. M. K. Angelo.

Registered Designs.

An Improved Bottle Top and Cork-screw—August 11—4735—T. Healey, 73, Graham-street, Birmingham.
Tool Holder—August 18—4736—Smith and Coventry, Gresley Iron Works, Manchester.
Stand, or Support, for Crinoline, or Fire-guards and Banner-screens—August 22—4737—R. W. Winfield and Co., Birmingham.